The Qualitative Report Volume 15 Number 5 September 2010 1243-1269
http://www.nova.edu/ssss/QR/QR15-5/kjellgren.pdf

Psychotherapeutic Treatment in Combination with Relaxation in a Flotation Tank: Effects on "Burn-Out Syndrome"

Anette Kjellgren, Hanne Buhrkall, and Torsten Norlander
Karlstad University, Karlstad, Sweden

The focus of this study was to investigate experiences gained from treatment combining relaxation in flotation tank with psychotherapy for sufferers from "burn-out syndrome". Six people participated in a ten week program. They were all interviewed; the data were analyzed using the Empirical Phenomenological Psychological method. Five themes emerged: (a) direct experiences during flotation, (b) effects due to the treatment sessions, (c) psychological transformation, (d) reflections about the treatment program, and (e) demanding and rewarding psychological process over time. All participants went through psychological transformations and improvements in quality of life. At the end of the treatment program, all participants were able continue working full time. This combined program seems to be more therapeutically beneficial than flotation tank treatment alone. Key Words: Relaxation, Psychotherapy, Depression, Rehabilitation, Stress, Phenomenology, and Flotation Tank Treatment

Introduction

Treatments with relaxation in flotation tank (Flotation-REST, Restricted Environmental Stimulation Technique) can generate a multitude of positive effects like stress reduction, significantly reducing stress-related pain, increasing optimism, and decreasing the degree of depression and anxiety (Bood, 2007; Bood, Sundequist, Kjellgren, Nordström, & Norlander, 2005; Kjellgren, 2003). Flotation-REST is a mild form of sensory isolation where a person is immersed in a tank of salt water (magnesium sulphate) heated to skin temperature (normally about 35.5 – 36 °C). All incoming stimuli are reduced to a minimum, since it is dark inside the tank and earplugs are used. The depth of the water is only about 250 mm, but since the buoyancy of the salt water is high, a person can comfortably float lying on his/her back. A normal treatment period is 45 minutes.

In earlier studies, flotation-REST was used alone, i.e., without combining with other methods. Many of the experienced benefits with flotation-REST encompass psychological realms. We are therefore interested in further evaluating the potential of flotation-REST if combined with psychotherapeutic sessions. Since very few such combined studies exist, the need is obvious. Below, the focus will be on giving a short review of current knowledge about flotation-REST.

In several quantitative studies, flotation-REST has shown beneficial effects for persons with a high stress load and for those with symptoms like muscle tension pain, depression, anxiety, and sleep problems (Bood et al., 2005; Bood, Sundequist, Norlander, Nordström, Nordenström, Kjellgren, et al., 2006; Kjellgren, Sundequist, Norlander, & Archer, 2001). In these earlier studies, a series of treatment sessions have been applied where flotation sessions were applied twice a week for several weeks. A treatment series as short as twelve treatments over seven weeks showed

that areas of pain, stress, anxiety, and depression decreased, while sleep quality, optimism, positive affectivity, and prolactin increased. Positive effects typically were maintained four months after treatment (Bood et al., 2006). Considerable improvements also have been documented for persons with *burn-out syndrome* (experienced as long-term exhaustion), where anxiety and depression have diminished, sleep quality has improved, and increased optimism has resulted (Bood et al., 2005). It has been postulated that the positive effects are mediated mainly by the deep relaxation and stress reduction that follow the treatment.

Many of these quantitative studies have not taken into account experienced psychological effects and experienced altered states of consciousness during treatment. During deep relaxation in a flotation tank, mild altered states of consciousness (ASC) are induced. Typical features for such states can be: alterations in time perception, body image changes, and altered cognitive functions where deep personal insights might be achieved (Kjellgren, 2003; Kjellgren, Lydén, & Norlander, 2008). Often, perceptual effects also occur (mainly visual) where images similar to nightly dreams are experienced. In a historical perspective, altered states of consciousness are considered the world's oldest healing method (Eliade, 1972). Ancient cultures and native shamanistic societies have used consciousness altering techniques for e.g., healing and wellbeing of persons suffering from diverse ailments. Methods used for inducing ASC have included sensory isolation, rhythmic stimulation, fasting, and prayer, as well as mind-altering drugs (Kjellgren). We have speculated that the ASC induced by flotation-REST may, besides the deep relaxation, be a contributing factor to most, if not all of the positive effects that have been observed. Other relaxation techniques, like yoga or being outdoors looking at natural scenery, also induce mild ASC, as well as beneficial health effects (Kjellgren, Bood, Axelsson, Norlander, & Saatcioglu, 2007; Kjellgren & Buhrkall, 2010). The idea of combining flotation-REST with psychotherapy has emerged during the ten years we have worked with investigating the effects of the flotation tank technique.

A few phenomenological studies investigating flotation-REST exist. A qualitative study (Kjellgren et al., 2008) highlighted experiences during flotation from patients suffering from chronic pain, depression and *burn-out syndrome*. Participants there experienced floating as desirable, and as a valuable technique for achieving deep relaxation, as well as pain reduction. Another small phenomenological study we conducted (Åsenlöf, Olsson, Bood, & Norlander, 2007), used psychotherapy combined with flotation-REST. It indicated unexpectedly high beneficial psychological transformative results, as well as successful rehabilitation for persons suffering from fibromyalgia and depression. Due to the high beneficial results of this last study, it was concluded that a further examination of this combination treatment program seemed to be needed. Therefore the present study was to investigate the participants' experiences from the combination of the relaxed state resulting from the flotation tank and psychotherapeutic interventions. In order to obtain as detailed, personal, subjective data as possible, with potential forthcoming studies in mind, a phenomenological approach was preferred (i.e., the qualitative method of understanding the essence of the phenomenon). Data were gathered with semi-structured interviews. Since the treatment program continued for ten weeks, we performed two interviews (at four weeks and ten weeks) to allow capture of different aspects during this time-course. The present study is based on the philosophy initiated by Edmund Husserl at the beginning of the twentieth century (Giorgi & Giorgi, 2003).

The aim of the present study was to understand the the beneficial phenomenon following the experiences and psychological processes initiated through a series of treatments combining relaxation in a flotation tank with psychotherapy for persons suffering from diverse ailments as chronic fatigue, depression, pain and/or anxiety (commonly referred to as *burn-out syndrome*). The Empirical Phenomenological Psychological Method (EPP), as described by Karlsson (1995), was applied.

The Selves of the Researchers

Three researchers conducted this study. The research group consisted of an associate professor (Kjellgren), a student in psychology (Buhrkall), and a professor in psychology (Norlander).

Kjellgren has an interest in investigating different methods for relaxation and stress reduction. She has conducted studies, mainly about isolation in flotation tank, but also with yoga, meditation and relaxation outdoors in a natural environment. Buhrkall has an interest in health issues and out-door activities. She is a student at the psychotherapist program. Norlander is scientific leader of the Human Performance Laboratory, at Karlstad University, Sweden, where extensive research in areas of stress and performance is conducted. His research interests spans over many fields such as creativity, flotation-REST, psychosis and ADHD, where he applies both quantitative and qualitative methods.

Method

The present study was approved by the Ethical Board on Experimentation on Human Subjects (Forskningsetikkommittén) at Karlstad University, Sweden. The study was supported by grants from the County Council in Värmland (Landstinget - LiV), Sweden

Participants

Four women and two men (subsequently referred to as clients) between the ages of 33 and 57 years old took part in the study. The average age of the clients was 42.7 years. All clients resided in Värmland, Sweden, and all were employed. All the clients had sought help from their doctor(s) at their respective occupational health clinic(s) due to tiredness, depression, high stress load, pain in different parts of their bodies, and sleep problems at night. They were all diagnosed as suffering from *burn-out syndrome* with symptoms of fatigue, listlessness, and problems organizing daily life. They had all reported to their physicians that rest did not relieve their ailments, and they were on the brink of immediate full-time sick leave. Through the occupational health clinic(s), the clients were referred to the Stress Clinic at the Human Performance Laboratory, Karlstad University, Sweden. All clients had previously tried different types of therapies, such as acupuncture, relaxation techniques, light physical training regimens, as well as stress management courses, but without any significant perceived improvements. All clients agreed to participate in the ten-week treatment program consisting of flotation-REST treatments and psychotherapy with a psychologist. They were all informed about the voluntarily participation in the study, and all made written informed consent for this. It was possible for them to be included in the treatment program without being included in the study, but none chose that option.

Psychologist

The licensed psychologist has 21 years professional experience and has worked with substance abusers, emergency psychological care, school psychological care, and the Labor and Workforce Development Institutes in Sweden and Norway, among others. The psychologist works in the psychodynamic tradition, but his practice is informed by interventions used in cognitive behavior therapy. Since he has many years experience in his own practice of Zen meditation, he also uses mindfulness techniques. During his talks with the clients, he also encouraged them to take notice of bodily sensations that might emerge.

Design

Participants included in the treatment program (see below for a full description) were interviewed twice during the ten weeks about their experiences of the treatments and effects afterwards in their daily lives. The interviews aimed at describing and answer the questions "how" the phenomenon expresses itself (noesis), and "what" the phenomenon is (noema; Karlsson, 1995). The first interviews (about 30 minutes) were performed after four weeks, and the last interviews (about 60 minutes) after they had fulfilled their last treatment after ten weeks. Two interviews were held in order to allow for capturing different aspects during this time-course. Data gathered from these interviews were later analyzed with the Empirical Phenomenological Psychological Method, as described by Karlsson.

Treatment Program Design

The treatment program included the two following components: (a) flotation-REST twice weekly for 45 minutes over a ten-week period and (b) conversational therapy for 60 minutes once a week immediately preceded by or following a floating-REST session, thereby yielding a total of 20 flotation-REST treatments and ten individual conversational therapeutic treatments. During one occasion weekly, the floating session was directly linked to conversational therapy. During the other weekly floating session, the participant "floated on his or her own" without subsequent psychotherapy sessions. The participants decided themselves if they wished to focus on anything particular during their stay in the tank. The only instruction was "try to relax." An easy breathing instruction consisting of counting one's own breaths from one to ten was given as an option if relaxation felt difficult. All participants were randomized to either try the conversional therapy immediately before the flotation-REST treatment, or immediately after the flotation tank. All participants first tried both patterns in randomized order, and were then informed that they could select the pattern they wished to use.

The purpose of the introductory psychotherapeutic conversation with the psychologist was to make an inventory or analysis with each participant concerning life circumstances and situations one experienced as troubling. When a specific problem area was identified, it became the focus or the point of origin for subsequent conversations. Problem areas could, for instance, deal with childhood and growing up, relationships, illnesses, etc. These can also be described as if they pertained to one's own role and opportunities. In the subsequent conversations, the individual's current life situation were discussed and no fixed agenda was followed. Frequently, conversations began by elaborating on the flotation tank experience by the

participant's own initiative. Experiences in the tank were not the central theme of the conversation, but were often the catalyst for conversation to begin sessions. All participants had the same psychologist for every session. They were encouraged to keep a journal of their floating experiences.

Flotation tank. A flotation tank (Bood et al., 2005) measuring 2700 mm x 1500 mm x 1300 mm was used. The flotation tank was insulated to maintain constant air and water temperature and to offer total darkness and silence (earplugs are also used). The water temperature was maintained at around 35 - 36 ˚C, and clients were able to adjust the water temperature in order to find their preferred and ideal temperature. The depth of liquid (salt water) varied between 200 to 300 mm and was saturated with magnesium sulphate (density: 1.3 g/cm^3). Each relaxation session lasted for 45 minutes, where the participants floated on their back in the warm water. Soft music was played for two minutes (signaling the start of the treatment), followed by 45 minutes silence, and finally music started again as a signal to terminate the session.

Data Collection

In the initial phase, during organizational planning of the project, the psychologist was included. It was agreed that all data collected from the clients would be treated confidentially, i.e., that all data would be coded to protect confidentiality and that only the second author (Buhrkall) would listen to the material that had been recorded.

Upon accepting participation in the project, clients signed a written agreement regarding their protection of confidentiality and their right to terminate whenever they wanted, without needing to provide a motive. Further, the written agreement determined that the collected material could only be used as a basis for publication on the condition that the confidentiality of the client was protected. Finally, the written consent stated that the participants had the right to request that their collected data be destroyed if they were to terminate the project.

Upon arrival at the first session, all facilities such as toilets, meeting rooms, storage lockers, etc. were shown by the second author. Participants also were informed about all practical details regarding the flotation tank (e.g., showering before and after immersion, earplugs, buttons/switches for lights and alarms). Thereafter, they were given the opportunity to undergo their first flotation tank treatment for 45 minutes. The reservation of times for the subsequent two weeks took place afterward. Clients' names had earlier been randomized, so that their next sessions either positioned the conversation with the psychologist directly before the flotation tank treatment, or directly after. After two weeks, all participants had tried both options, and from week three of the study, they had the opportunity to choose how they wanted the session to be ordered in subsequent weeks. Each following week, participants came in part for a single flotation tank treatment and a combined session that included both a conversation with the psychologist and a flotation-REST. After four weeks of treatment, a 30-minute interview with the second author, Buhrkall, was made about the experiences up to that point. These interviews were audio-recorded, for which the clients had previously provided their written consent. Consent to interview was also asked as the first question when the tape was running. The interviews were held in a room at the clinic.

During the tenth and final week of treatment, a second interview was conducted (with the second author) following the clients' final flotation-REST session. Only the client and the interviewer were present during the interviews. Transcriptions were made of the interviews immediately after they were conducted, and the transcriptions were coded in order to maintain anonymity. The semi-structured interviews were partly based on the themes that emerged in the Åsenlöf et al. (2007) study and partly based on the psychologist's observations and experiences with the therapeutic process in connection with flotation-REST treatment. The interview phase continued until data saturation was achieved.

Data Analysis

The first and second authors transcribed the audio-recorded interviews into a word file. Then, the first and second authors analyzed the data using the Empirical Phenomenological Psychological Method (EPP-method) devised by Gunnar Karlsson (1995). The EPP-method comprises an analysis in five steps and was performed by the first and second author.

Step 1. This stage involved reading clients' descriptions carefully until a substantial understanding, overview, and *sense* of the material was obtained. The aim of this reading was to distinguish relevant psychological phenomenon (Karlsson, 1995). In this study, the descriptions were read three times in no particular order by the first and second author. The reading excluded the aim of testing validity or any specific hypothesis.

Step 2. In the second step of the analysis, the first and second author divided the text into so-called meaning units (MUs). This division is not based upon any rules of grammar, but entirely upon the content the researcher discovers and at places where a suitable shift in meaning occurs. An example from one person, yielding two MUs:

1. At home I experience that I can control the level of physical relaxation and that I have become aware of the kinds of levels of different relaxation that there are
2. I used to have lots of pain in my back, but know it feels like the pains have left me

Step 3. During the third step of the EPP process, the first and second author transformed each MU from the language of the client to the language of the researcher. This transformation follows no specific rules; however everyday language is preferred to "psychological" terminology. The purpose is to make the implicit and underlying meaning of a phenomenon visible and explicit. The transformed MUs from the above example are given below:

1. The client describes feelings of relaxation in everyday life
2. The client describes having less pain in his back these days

Step 4. In the fourth step, the transformed MUs were synthesized into categories or situated structures. An attempt to describe and answer the questions "how" the phenomenon flotation relaxation expresses itself (noesis), and "what" the

phenomenon is (noema), were focused during categorization. The categories vary in content depending upon the client's experience of the phenomenon from which they originate. The categories or situated structures were developed during processing whereby repeated consultations of raw data continued in a hermeneutic manner (Karlsson, 1995). In order to verify that the transformed MUs (Step 3) continued to represent the perscpective of the participants, descriptions of categories and MUs (raw data) are presented together in the Results section.

Step 5. During this final step, the categories were moved from the situated structures and abstracted into a more general theme or typological structure. During the analysis, the authors decided upon the level of abstraction, according to the principle that clarity should be attained without excessive detail. The desire was to reflect at a more abstract level. Five themes emerged and they included categories that denoted various aspects of the experience of participating in the therapy program:

1. Direct experiences during flotation
2. Effects due to the treatment sessions
3. Psychological transformation
4. Reflections about the treatment program
5. Demanding and rewarding psychological process over time

Reliability and validity. A trustworthiness test, the Norlander Credibility Test (NCB), was used for the phenomenological analysis (e.g., Edebol, Bood, & Norlander, 2008; Norlander, Gård, Lindholm, & Archer, 2003; Pramling, Norlander, & Archer, 2003) in order to ensure reliability. It was conducted randomly selecting five of the 32 categories. Thereafter, four of the MUs were randomly selected from each of the five categories. The material was then given to two independent assessors. Their assignment was to put the twenty MUs into the five different categories. One of the tests yielded an 84 % agreement, and the other test yielded an 80% agreement. The overall agreement was thus 82 %. According to Karlsson (1995), high validity is ensured by following the stages of the EPP method.

Results

The Empirical Phenomenological Psychological method (EPP) (Karlsson, 1995) was used to analyze the material. The analysis yielded 420 MUs from which 32 categories emerged. Each category illustrates a special perspective on the flotataion relaxation phenomenon due to the treatment program and, when considered as a whole, the categories can illuminate and provide insight into experiences and meanings derived from the therapeutic program. The categories were clustered into five themes, and will later be discussed as such. The themes are:

1. Direct experiences during flotation
2. Effects due to the treatment sessions
3. Psychological transformation
4. Reflections about the treatment program
5. Demanding and rewarding psychological process over time

The categories are presented below in the approximate sequence in which they emerged during analysis. Some selected excerpts from transcripts are presented to exemplify each category description.

1. Preparations, Aims, and Expectations Prior to the Course of the Treatment (21 MUs)

The clients stated that an important component was to explicitly formulate an aim for the course of treatment. An enhanced effect was thought to have been achieved when clients consciously invested time, prioritized goals, and focused on one goal during the course of treatment. Further, clients noted that in order to gain substantial improvement, motivation and careful preparation, rather than aimless curiosity, should precede treatment. Clients' specific aims were to achieve relaxation and stress reduction, initiate a transformation of thought patterns, and learn how to efficiently emphasize one's personal boundaries. Finally, clients noted that motivation and ambition could open on to personal stress.

> Examples: "I have invested a lot in the treatment"/ "I wanted to try to release the need for control which in turn creates the anxiety"/ "It is the strength to prioritize and say no that I want"/ "And I said to the psychologist the first time, I am here because I want to be able to handle the life I am living"/ "That is the most important thing for me about this treatment; that I get away from these stupid thoughts"/ "It is very positive that I am focused because I want to reach my aims and a change"/ "It could be frustrating if I do not get to the state of relaxation that I want"

2. Technicalities (11 MUs)

The temperature in the floatation tank was of great significance to the clients. Reports were made of clients being less relaxed and failing to maintain focus in the tank if the temperature deviated as little as 0.1 degree Celsius from the clients preferred water temperature. Furthermore, the length and type of music that indicated the start and the end of the stay in the floatation tank was important to the clients. Body positions within the flotation tank developed successively during the course of treatment, and reports of increased feelings of safety in relaxing the neck, thereby yielding a more relaxed body position, were made.

> Examples: "And the temperature, I think, is important. 35.9 is what I have and then I do not feel anything and there is nothing that interferes with my ability to concentrate." / "I feel very secure when I relax my neck" / "when the music starts at the end, I usually stretch my body, and it is very nice because nothing is in the way" / "In the beginning, I realized that I was holding my head up. But I do not do that anymore"

3. Sequence flotation-REST – therapy (17 MUs)

As a result of flotation-REST, clients experienced an enhanced state of relaxation on several levels subsequent to 'floating', such as feelings of presence, a tranquil and blissful mood, and clarity. This enhanced state of relaxation brought

about a structured and focused mind, as well as transparency and insight into one's patterns. Reports were made of an enhanced ability to formulate significant subjects. Hence, psychotherapeutic sessions with the psychologist subsequent to flotation-REST were preferred to therapy not preceded by flotation-REST. When flotation-REST took place after a conversational session, reports were made of reluctance toward isolation in a tank subsequent to an exhausting conversation with the psychologist.

> Examples: "I think that because you relax and open up in the tank, then you are more open and responsive with the psychologist" / "There is another mood after floating" / "I prefer to float first and then talk to the psychologist; I am more present I feel, and there is nothing unimportant in my mind then" / "I don't talk so quickly after floating, there is nothing unimportant in my mind" / "I have built up this shell for many years, and if you crawl under it during the conversation, then it does not work for me to be in the tank. I cannot relax because I have had too many thoughts and it doesn't have any effect"

4. Importance of appropriate and careful scheduling of sessions (10 MUs)

Clients did not like to float in the mornings. Difficulty relaxing the mind was reported when clients were mentally preparing for the day and considering work issues they would face. It was further emphasized that the frequency of flotation-REST treatments (two occasions each week) contributed to an increased awareness of relaxation and stress reduction in clients' everyday life.

> Examples: "It does not work out for me to float in the morning when I am on my way to work and am gearing up for the day. I take work issues with me in the tank"/ "Now I am here twice every week and then I regularly relax. It somehow becomes some kind of practice, because I become aware of how relaxation affects me here, and in other situations"/ "It has helped that it was possible for me to plan when I wanted to float so that it fits in with my job"

5. Increased awareness of the significance of respiration (7 MUs)

Clients reported having experienced how their breathing influences the level of physical tension as well as their thoughts. Further, clients obtained knowledge concerning how to deliberately manipulate respiration in order to achieve physical and mental relaxation.

> Examples: "Respiration and thoughts are connected" / "It's only while in the tank that I have noted how breathing and floating in the tank affect each other" / "I have become more aware of how to relax and that relaxation affects my respiration"

6. Automatically self-taught bodily responses (4 MUs)

Clients experienced how the body automatically responded and relaxed when exposed to the flotation tank. The body placed itself in a relaxed position in the tank without the clients being aware of it.

> Examples: "In the beginning when I started floating, I lay with my arms at my side and then all of a sudden my arms were up over my head, it just happened automatically. It has been very good for my body and shoulders and it was something that just happened. I did not think about that, the body just figured it out on its own" / "I have felt that when I lie down in the tank and the music starts, then my body answers immediately. It is like Pavlov's dogs; it is like the body has been trained"

7. ASC experiences during flotation-REST (17 MUs)

Clients reported intense sensational experiences during flotation-REST, such as the body levitating, being agravic, and disappearing into nothing. Clients reported they liked these new and exciting experiences. Strong positive feelings of freedom were reported. Clients felt a power within the tank to act or think without externally imposed restraints, as well as a loss of physical confinement since the body felt disengaged from the mind.

> Examples: "I felt a clear relief once and just flew away into nothing and felt as if I was flying and could not feel whether I was in the tank or where I was; my entire body was flying" / "It has been very nice to be so relaxed and just disappear into nothing" / "It is just my head and my mind there, the rest of my body was not there, and everything was concentrating on my mind" / "at the same time it was very pleasant to sail away in another state" / "I get a strong feeling of freedom"

8. Increased mental relaxation and presence (10 MUs)

As a result of the course of the treatment, experiences of increased internal and mental calm as well as relaxation on several levels were reported. Increased relaxation brought about positive changes in life in general, such as an increased sense of presence and awareness.

> Examples: "I think that the experiences I have had here have affected me so that I see myself differently and I have changed, I am now more calm and present" / "And it has affected me so that I am now more present when I am with my family" / "And in the beginning, there were a lot of people in the tank. But then I did this movement with my hands and told them to leave, and now it is just me there and it is incredibly pleasant and it makes me feel very good" / "In the beginning there were a lot of mental "aah-haaaa experiences"

9. Reduced thought-processes and equanimity during flotation-REST (9 MUs)

Clients reported of an ability to influence or manipulate thought-processes in order to reduce levels of agitation and anxiety; this in turn generated a sense of equanimity. Clients also reported an acquired ability to achieve these effects during flotation-REST. Further, the clients were able to focus their minds on one thought for much longer in the tank than they were in everyday life. This was an increasing effect during the course of treatment.

> Examples: "Today I had a very pretty tulip between my toes that I was laying and thinking about. So I focused on that and it made me feel good" / "You can keep a thought for very long now and I can focus on one thought and its solution and it stays for a long time. Otherwise, I think that I can have 47 thoughts in my head at the same time, but here it stays much longer" / "What is fascinating, is that the thought process turns off automatically" / "I have this aim to let go of my need for control. Then I come here and relax completely and then I am ready to talk about it without having a lot of garbage in my head"

10. Physical relaxation (17 MUs)

Clients reported that levels of physical tension diminished gradually during the course of treatment. The degree of physical relaxation was superior to any previously experienced level of relaxation. Further, reports were made of the capacity to deliberately influence stress and tension in the body toward a relaxation and tranquility. Finally, clients reported that the physically relaxed state during flotation-REST was achieved effortlessly.

> Examples: "The last couple of times I was floating, it was very relaxing and my body was in some sort of hibernation" / "and I can decide to reach this relaxed state" / "every time I am in the tank, my legs and arms and entire body is in an extreme kind of relaxation that does not happen otherwise" / "and then I think that it is fantastic to have the possibility to lay in the tank and relax" / "it is a very nice method because you do not have to force yourself to become relaxed, it just happens. It comes to you"

11. Different experiences during flotation-REST (8 MUs)

Despite clients' continual perception of flotation-REST as a positive experience, the levels of mental and physical relaxation fluctuated from time to time. Reports were made of certain expectations of the anticipated flotation-REST opportunity and of clients' surprise that floating could result in completely different experiences than those expected. Further, reports were made of various positive feelings during flotation-REST, such as happiness, peacefulness, or leisureliness.

> Examples: Even though it can be different from time to time, you still achieve a difference in relaxation even though how big a difference can vary" / "and then there were a couple of times when it was very deep relaxation and then I thought it would be that way. But then it

> was extremely relaxing again and it has been like that" / "But there are kind of different levels of relaxation"

12. Relaxation from the tank extends to everyday-life (16 MUs)

Experiences of physical relaxation during flotation-REST have revised the clients' levels of physical tension toward a more healthy and appropriate level. This alteration was initiated and implemented in several steps. First, clients experienced an awareness of the variety of levels of relaxation due to experiences in the tank. Second, clients described how they became observant of different levels of tension in their everyday lives. Third, reports were made of an effortlessly learned ability to associate and apply the sense of relaxation from the tank to everyday life, when clients felt tense. They deliberately could manipulate the body toward a relaxed state. Finally, as an increasing effect over the course of treatment, reports were made of a generally lowered level of physical tension.

> Examples: "I have become aware of thinking how to relax" / "at home I experience that I can control the level of physical relaxation and that I have become aware of the kinds of levels of different relaxation that there are" / "and I wanted my body to learn to relax on its own instead of me manipulating it to be relaxed. I feel that it happens a lot faster now." / "I think that the level of physical tension has lessened"

13. Positive changes observed by others (7 MUs)

Clients reported of individuals in their environments observing positive changes among them during the course of treatment. Positive changes were mainly observed by significant others such as spouses and children who described the clients as becoming generally more positive and optimistic, and as being better parents or spouses during the course of treatment. In addition, clients reported that colleagues observed positive changes such as increased well-being.

> Examples: "I believe that my wife is seeing a difference too, she mentioned that yesterday" / "I think that my wife has experienced a difference with me and I assume that others have noticed it too" / "and my husband describes that he thinks that I have changed" / "and I have been better, they say so at home" / "and my kids probably think that I am a better dad now"

14. Enhanced cognitive capacity subsequent to flotation-REST (6 MUs)

Subsequent to flotation-REST, clients recognized a superior capacity to structure and focus their minds and thoughts, contradictory to everyday life when the character of thoughts could be more disordered. Increased levels of creativity as well as and enhanced ability to articulate and formulate significant issues were reported. Reports were made of great fascination and satisfaction with this capacity.

> Examples: "and I was fascinated that I was so structured after flotation" / "Then, I am better at formulating things after flotation" / "and I think it is because I am more relaxed after flotation that I feel

> that I can think and have the time to think before I talk" / "It is only a couple of hours after flotation that I am better at formulating. So sadly, it does not last for that long but it is very pleasant when it is there" / "the thoughts are creative" / "there is nothing unimportant in your mind afterwards"

15. Coping with and taking control over one's thoughts (14 MUs)

Clients reported of an acquired skill to focus on, cope with, and control one's thoughts on several levels; such as an increased awareness of thought patterns, as well as an ability to focus on one thought much longer in the tank as well as in everyday life. This, in turn, brought about a capacity to control one's thoughts rather than unknowingly being controlled by them. Further, the ability to control one's thoughts brought about positive changes in life in general, such as sense of trust in oneself and the future, as well as a knowledge of the strength embodied in the individual to improve one's own situation. These effects accumulated through the course of treatment.

> Examples: "you can keep a thought for a very long time and can focus on the thought and its solution. It stays there for a long time. Otherwise I think I could have 47 thoughts in one minute, but now they stay longer" / "and it is a very strong tool, the insight that you can control your feelings and level of relaxation" / "It is this insight, that I have a lot of power and can control instead of just follow the stream" / "it is so good for me to finally be able to control my thoughts"

16. Observing a transformed self-image (11 MUs)

Experiences during the course of the treatment have revised clients' perceptions of themselves and clients reported observing this transformation. Clients emphasized that this transformation not only affected the clients' self-images, but also their actual behavior. The clients perceived their changed self-image as a positive experience. However, clients reported of unpredicted insights of the self that were troublesome to accept.

> Examples: "You get a whole new image of yourself and, you know, that is a little difficult" / "It is positive, but it gives me a totally new image of myself that I am not used to" / "But one thing is for sure, I am not the same person now as when I came here the first time" / "it is a huge process to dare to see yourself differently" / "It is amazing to see yourself differently, and this is just the beginning"

17. Influence on dream patterns (6 MUs)

The clients made descriptions of changed dream patterns. They began remembering their dreams during the course of treatment and they reported significant changes in the content of dreams as the course of treatment progressed. Clients used the dreams, which were now relevant and meaningful to them, as instruments of personal development during the course.

> Examples: "It is so nice to wake up in the morning having had a dream you can relate to" / "since I started floating I now remember my dreams. Besides, my dreams are now relevant to me" / "before I started floating, if I had been dreaming, it was extremely odd. I was thinking, what kind of dream is this? Is it me who makes this up?"

18. Enhanced sleep (25 MUs)

Clients reported generally improved sleep during the course of treatment, in particular, during nights that followed flotation-REST. The clients experienced an effortlessly relaxed state while lying in bed, as well as a deliberate and unintentional ability to influence the level of relaxation by imitating the resting body position experienced in the tank and composing their respiration. The quality of sleep was enhanced by a deeper, more tranquil sleep, with fewer awakenings during the night, and a sense of renewed energy upon awakening in the morning.

> Examples: "and I do not sleep during the day, I do not need that anymore" / "I fall asleep, I have never had problems with that, but I have had my TV as a kind of reason to wake up, so that I can break or distract my thoughts with the TV. I have not needed to do that since I started here" / "Before I started here, my sleep was a disaster. I would go to bed and I was really tired so I did fall asleep. But I would wake up after an hour and be totally awake" / "I fall asleep faster. I do not have to lie there and wait for the sleep to come. So I felt early on that this was an effect"

19. The positive influence of flotation-REST endure (7 MUs)

Physical tension and mental anxiety and stress diminished during flotation-REST. The clients emphasized that these effects were of long duration, which brought about a sense of presence, relaxation, and diminished stress and pain that lasted for several days.

> Examples: "the effects last long if you do not work and so, maybe for two to three days" / "The evenings after floating are always very good. Yesterday, I went to football with my kids and you kind of keep that calm sensation" / "The effects of floating last for a long time"

20. Pain reduction (5 MUs)

The clients reported of reduced pain, primarily in shoulders and back. Pain vanished early in the course of treatment and the effect lasted for several days between treatments. Clients experienced pain reduction as an enhancement to life in general.

> Examples: "I don't know whether it is stress or my work, but it was the pain that disappeared already the first time I was floating" / "I am so very stiff in my shoulders you know. I must say that it depends on how you work. I had been sitting in a cold draft last Friday, and then I was just floating this one time and the stiffness disappeared"

21. Learned to prioritize oneself (10 MUs)

Throughout the course of treatment, clients reported deliberately choosing to prioritize themselves on several levels, such as investing time and engagement in treatment, continually incorporating changes resulting from treatment, and focusing on their own lives and interests instead of those of others. Finally, the clients reported that the learned ability to prioritize and engage in themselves provided personal satisfaction and greater self-worth.

> Examples: "A good thing is that I now take and have time with myself. I think that is very good" / "and I have started to prioritize myself, so now they don't do whatever they want anymore" / "so I have decided that this spring I don't have the time to do a lot of other stuff but focus on me" / "What is good is that now you just focus on yourself and take the time to come here. That makes me feel good about myself"

22. Understanding the reciprocal relationship between body and mind (9 MUs)

Clients described experiences of the relationship between body and mind. During flotation-REST, clients became aware how their thoughts influence and affect their level of physical tension and distress, and vice versa. Further, clients reported having acquired knowledge in the flotation tank about how to consciously influence their thoughts as well as their levels of physical tension toward a more relaxed state, in the tank as well as in life in general. Finally, clients reported that being aware of mental and physical tension was experienced as a first and essential step towards successfully reforming habituated patterns.

> Examples: "and I feel this in the tank, then I feel every time that my body reacts to that, I take too much responsibility and control. I feel where it is in my body, these muscles more and more, and then I become more grounded in myself" / "and I have become more observant of when I get tense and I notice that my respiration then changes. So now I can decide to breathe more calmly and then become more relaxed" / "and you become aware of how the tension feels in the tank and how it affects you here and in other situations" / "and I felt a little now that I was tense in my body and then it is not so good. But it is, however, recourse to know what you feel"

23. New way of life (7 MUs)

As a result of the course of treatment, clients were able to make significant and desired changes in their lives on several levels. Some such changes included deciding to leave an uninspiring and tiresome job in lieu of activities that provide personal satisfaction, choosing mindfulness and presence over indifferent status symbols, abandoning hectic quests for material happiness and taking up earlier hobbies once again. They also reported diminished annoyance with family and colleagues, a reduced need for control, an acquired ability to not respond or be troubled by insignificant matters, decreased worry about the opinions of others, and altered priorities.

> Examples: “and I have gone from just saying how I want to live my life to now feeling that finally this has become my way of living” / “and I have decided to leave my job and start doing something that I enjoy. Yes, I have started working out and I want to start photography” / “and I have radically cut back at my job and that is good for me” / “now I just focus on the important stuff in life instead of controlling and being irritated by people”

24. Learned to say no and disregard the opinion of others (16 MUs)

Clients described an enhanced ability to disregard explicit and implicit expectations of others. The clients learned throughout the course of treatment to not respond to or be bothered by insignificant matters such as unmotivated criticism or unrealistic requirements at work. Moreover, they also reported an internal strength and self-worth that gradually developed, which in turn helped clients say “no”.

> Examples: “I wink at a lot of unimportant stuff now” / “and I have said “no” to working more than 15 hours and I have become much stronger that way” / “and it is very troublesome to be controlling all the time and I just don’t give a shit about that anymore. If someone is late at work or doesn’t do their job, I just don’t care anymore” / “but most importantly it is this thing that I now just smile when people criticize me. And I think, “yes, yes, you are really stupid but I am choosing to be like this” / “I cant walk around and be bothered by the opinions of others anymore. I just can’t manage to do that now”

25. Altered everyday life and approach to life (14 MUs)

As a result of the course of treatment, changes appeared on several levels in the clients’ personal lives, such as no or fewer conflicts/arguments with the family, a diminished need for control at work as well as at home, less irritability and annoyance with insignificant matters and specifically, a more appropriate response pattern in general. Further, they also reported a more optimistic view of the world.

> Examples: “and I have had almost no conflicts at home since I started here” / “I am not as annoyed as I used to be, I used to be upset even by small things” / “I reminisce that I do not respond to things that I used to respond to” / “Sometimes I feel absent from the surroundings in a good way, because you cannot engage in everything. Then I will have the strength when the day comes when I need to be present” / “Now I am trying to be more present at home when I am with my family”

26. Familiarity with flotation-REST (6 MUs)

Clients reported diminished expectations and curiosity concerning flotation-REST. Moreover, while clients still enjoyed and appreciated the flotation-REST occasions, they did describe feelings of satisfaction and a consequently reduced need for flotation toward the end of the course of treatment.

> Examples: "I am used to floating now and I do not have any expectations left" / "and I will miss floating when this is over. It is so pleasant, but there have been so many times now, some kind of satiation has resulted" / "I feel so good when I am in the tank, although my curiosity has gone"

27. Demanding hard work and experiences (22 MUs)

Clients described difficult experiences during the course of treatment were made, such as anxiety or stomachache when defense mechanisms were lowered in therapy. Moreover, the clients pointed out that a significant amount of hard work as well as investment of time, willpower, and mental activity was required in order to progress and achieve the desired changes. Finally, clients described that they were prepared for hard work and difficult experiences when they agreed to participate in the course of the treatment. Hence, they accepted this and were aware of the need for this process in order to develop.

> Examples: "I have never talked with another person the ways I talk with the psychologist, so when we enter this shell that I have built up over all these years, it is scary. Then, I cannot be alone in the tank after I have built up this shell for many years" / "After a couple of weeks, I got this stomachache, and I think it was because of what I had to go through with the psychologist. It was some kind of anxiety-ache, but it has gone now" / "It can be very difficult at the moment, but things have to come out in the light. So that even though it does not feel good at the moment, in the long term I think it is good"

28. Thoughtful of the forthcoming eventualities (6 MUs)

Toward the end of the course of treatment, clients were thoughtful concerning the extent to which the treatment, when completed, would be incorporated in their lives. They considered how their personal progress would proceed without regular flotation and therapy sessions. Finally, they expressed optimism regarding continual development of the initiated changes.

> Examples: "but now it feels like it is okay to stop here and digest everything that has happened here, and kind of see where this will take me" / "but it is difficult and I do not know what will happen now, but I think that I will be feeling better" / "maybe you need to get some distance now from all of this, so you can see how you have changed afterwards"

29. A long-lasting process (14 MUs)

Clients described the course of treatment as a long process with no noticeable end, where personal benefits and positive experiences successively accumulated. Further, the clients also experienced the course of treatment as initiating their personal development. Hence, the progress of development was anticipated to continue subsequent to the course of the treatment.

> Examples: "I think that life has more to give to me now" / "I still have a long way to go before I find myself, and it is more than 30 years that I have lived this way. So I know that it will take time" / "I am not worried to come here, the anxiety comes afterward. But that is okay because that is what I need to work with, and it does not happen by itself. It probably will take longer than I thought" / "it feels like everything is a long, long, long process that has been moving toward the right direction upwards. So and then the good things have been added to one another" / "but this is just the beginning of all changes" / "but it will take time to change and there are still some setbacks, but they are not as frequent as they were before"

30. General satisfaction with participating in the course of treatment (26 MUs)

Clients reported how participating in the course of treatment was experienced as meaningful and profitable. They also reported a more positive view of the future, achieving aims established prior to treatment, and a general improvement in quality of life and approach to life. Based on their experiences during the course of treatment, clients have revised their self-perceptions [or self-assessments] and their behavior, initiating a transformation of their thoughts and actions toward more wholesome, appropriate behavior, and less self-destructive behavior. They also reported feelings of satisfaction both with the treatment and with the personal growth yielded.

> Examples: "To me it has been really meaningful to participate in this and it feels like a gift, a really nice gift, and it has been so very pleasant I think" / "and it is so incredibly good, this, and it is so good for me" / "In general, I am feeling so much better now and I am a better person now" / "It has been an amazing experience and I have gained so much from it" / "over many years, I have sought different kinds of help for my problems. But I have never felt that I have been better -- like I am now" / "I have definitely reached my goals"

31. Positive experience with conversational therapy (34 MUs)

The participants emphasized that the psychologist was appreciated as a guiding resource in their personal psychological journey. They also reported that they perceived the psychologist as being adequately competent in stimulating clients to gain awareness of and insight into problems and solutions, this due to the psychologist's ability to mirror clients. The psychological talks were, however, occasionally associated with anxiety, when a lowering of one's personal psychological defense mechanisms were involved. Finally, the clients reported having received substantially specific psychological instruments to apply in everyday life.

> Examples: "He has a fantastic ability to make you really see yourself and you know that he lets you find out on your own what is wrong, he just asks questions" / "It becomes my knowledge immediately, it is not like he tells me how things are, so it is my knowledge" / "what I have talked to the psychologist about and received some different tips to think about involve being more present, and I use these" / "but when I

> talked to the psychologist and he asked questions, then I could see the reasons why I felt the way I did, instead of just trying to treat the symptoms" / "I am never worried about going to the psychologist. It is afterward that it is difficult, when some things come up"

32. The combination of flotation-REST and conversational therapy (28 MUs)

The client viewed the two treatments as a mutual reinforcing combination of treatments on several levels. Flotation-REST seemed to enhance the conversational therapy due to the generally relaxed state induced during flotation-REST thereby speeding up processing of the conversational therapy; and the explicitness of thoughts, feelings, and behavior. Finally, the clients reported generally substantial satisfaction with the mere combination of flotation-REST and conversational therapy.

> Examples: "I get more out of conversations with the psychologist after I have been floating. To me this combination seems so right" / "and when you totally relax in the tank, then you are ready to talk about your problems because you are open and relaxed and do not have junk in your mind" / "I think that I get more focused and not so shaken in the tank if I have spoken to the psychologist immediately before" / "and I think that the combination of the tank and conversation has helped me let go of the need for control" / "then I have to say that to both float and talk with a psychologist has been very useful for me, I have been able to express certain things."

Discussion

The aim of the present study was to understand the the beneficial phenomenon following the experiences and psychological processes initiated through a series of treatments combining relaxation in a flotation tank with psychotherapy for persons suffering from diverse ailments as chronic fatigue, depression, pain and/or anxiety (commonly referred to as *burn-out syndrome*). The participants noted many far-reaching, beneficial effects. Some of the most notable were thorough positive psychological transformation and development, as well as increased body awareness, improved quality of sleep and reduced levels of pain. In addition, treatment in the tank was perceived of as pleasant and comfortable. The psychological work with conversation therapy was simultaneously experienced as demanding and rewarding work over time. The results from this study support existing flotation-REST protocols and an earlier study by Åsenlöf et al. (2007).

Direct Experiences During Flotation

This theme includes various experiences and insights gained during flotation-REST (categories: 5, 6, 7, 9, 11, 22). Deep relaxation and altered states of consciousness were induced, with experiences like feelings of flying, entering a state of "nothingness" and feelings of distinguishing the mind from bodily limitations. Experiencing how the mind and body are separate entities gave rise to insights concerning their close connectedness. A heightened awareness of physical sensations of breathing patterns and bodily responses were noticed, as was an augmented

awareness of body image and body processes in general. Also a deep physical relaxation, as well as mental relaxation with fewer thought processes were achieved and were greatly appreciated. The induction of altered states of consciousness (ASC) during the flotation sessions are in line with earlier studies (e.g., Kjellgren, 2003). Participants' increased awareness of bodily processes such as breathing and muscle tension seem to have contributed to a meaningful reduction of stress in daily life.

In earlier studies (e.g., Bood, 2007; Kjellgren, 2003) featuring flotation-REST alone, experiences of increased awareness of bodily processes were not as evident as those noted in this study. We therefore would like to suggest that regular psychotherapeutic sessions in connection with deep relaxation from the tank facilitate these capabilities. Clients were encouraged during talks with the psychologist to notice bodily sensations that might emerge. We propose that unusual or novel experiences during ASC, which were greatly welcomed by participants who expressed delight with these experiences (e.g., It has been very nice to be so relaxed and just disappear into nothing), in some way may have contributed to the beneficial effects described by the clients. This is in accordance with an earlier study by Åsenlöf et al. (2007).

Effects Due to the Treatment Sessions

The second theme (categories: 8, 10, 12, 14, 17, 18, 19, 20) comprises experiences of effects due to the treatment, as well as how these effects last beyond the sessions and extend into daily life. Considerable deep relaxation and stress reduction were acquired, and participants experienced that they gained control over their levels of tension. They also experienced that they could influence tension levels in their daily lives; participants were fascinated with how deep rest could so effortlessly be achieved. Enhanced quality of sleep was reported, where participants could apply the deep relaxation learned in the tank in order to more easily fall asleep at night. Nighttime sleep was experienced as more deep and undisturbed, and participants awoke feeling more rested, with more energy in the mornings.

One of the problems clients experienced before the treatment program started was a very heavy fatigue that did not disappear despite how much they rested or slept. The experience of re-gaining energy was experienced as an enormous improvement in their life situations. Even dream content changed and was experienced as more relevant and meaningful; content was seen as a potential tool for use in the personal development process. During the conversational therapy sessions, dream content and meanings were often discussed. Pain and stiffness in the body disappeared during the course of treatment, which was experienced by participants as an increased quality of life since they previously had been troubled by muscle tension pain. Participants described an increased inner peace and increased feeling of presence. This was accompanied by an improvement in memory and the ability to think, as well as an ability to express oneself better and in a better formulated manner. The positive effects upon stress, sleep, and pain have been addressed previously in flotation-REST studies, but it appears in this study that psychotherapy was one of the components attributing to positive results; participants themselves seem to place emphasis upon it and express it verbally with greater clarity than in earlier studies. This may be an effect of discussing these phenomena during conversation, and also of repeatedly verbalizing their observations.

Psychological Transformation

The third theme (categories: 13, 15, 16, 21, 23, 24, 25) includes descriptions of psychological transformations on many levels. The psychological insights that were obtained in conjunction with the psychotherapeutic conversations and the floating tank seem to have been integrated in the personality structure during the course of treatment. Clients described how they now are able to say "no" and disregard the unsolicited opinion of others. They find that they are not negatively impacted to the same extent by others' critiques, but feel greater inner security and strength. Further, they describe how they now can prioritize their own desires in a number of ways; for example they report taking up former hobbies again and thereby feeling greater self-worth and satisfaction with life. To gain control over one's way of thinking and to illuminate one's own psychological patterns has led to positive changes in life circumstances. Not only have participants themselves noted these types of changes, but close and significant others such as children, spouses, or partners have noted and pointed out the positive changes that have transpired. These extensive psychological transformations have improved life circumstances and approaches to life in many ways. Clients experience fewer conflicts and irritating situations, they feel a decreased need for control and they have gained a much more positive outlook on life in general. During the course of treatment, priorities have been reordered in terms of values, and clients have gained insight into what is essentially important in life. They now give less priority to the nonessentials of life.

Even in earlier flotation-REST studies good effects upon life circumstances have been noted. But such extensive and powerfully positive effects have not been observed. The psychologist who was used in this study noted that in his 21 years of practice, he had never experienced the therapeutic process to progress so quickly and reach such depths in ten weeks of treatment. He expressed both surprise and joy at seeing such complex life problems and deeply-rooted psychological patterns made conscious within clients so quickly. A suggestion for a future study might be interviewing psychologists treating participants involved in a flotation REST – conversation therapy combination. All the participants themselves chose to float first and then converse with the psychologist after having been given the opportunity to attempt both options. Perhaps pre-treatment in the flotation tank with its accompanying deep relaxation made possible a diminished psychological defense mechanism, possibly facilitating a quick and accelerated psychological process. Clients indicated themselves that they also were surprised that it was so "easy" to talk about important things in the subsequent conversations.

Reflections about the Treatment Program

The fourth theme (categories: 3, 30, 31, 32) summarizes participants' reflections about the combination treatment. The psychologist was perceived as a resource and a facilitator during their psychological journey. Through the psychologist's ability to mirror the participants, clients were helped and supported in overcoming their problems and finding solutions. They experienced that they had been provided useful tools for handling their everyday lives. Combining floating and conversation was experienced as effective as both methods strengthened and reinforced one another. Clients perceived that the relaxed state that resulted from the flotation sessions facilitated a quick progression in the conversation, arriving at what was important quite easily. The order of floating and conversation appeared to be

important. Clients reported that they experienced it as advantageous to float first and then progress to conversation, as their thoughts then were more focused. To participate in a therapeutic conversation first, and then proceed to the floating tank was not experienced positively. During conversation, clients felt they had opened themselves up, and relaxed their psychological defenses; this, in turn, could result in thoughts that felt overwhelming when a client then was left alone in the floating tank. Clients experienced it as very meaningful to be invited to participate in this course of treatment and described how they had experienced psychological transformation, and in many cases, how they had been able to leave destructive patterns behind them.

Demanding and Rewarding Psychological Process over Time

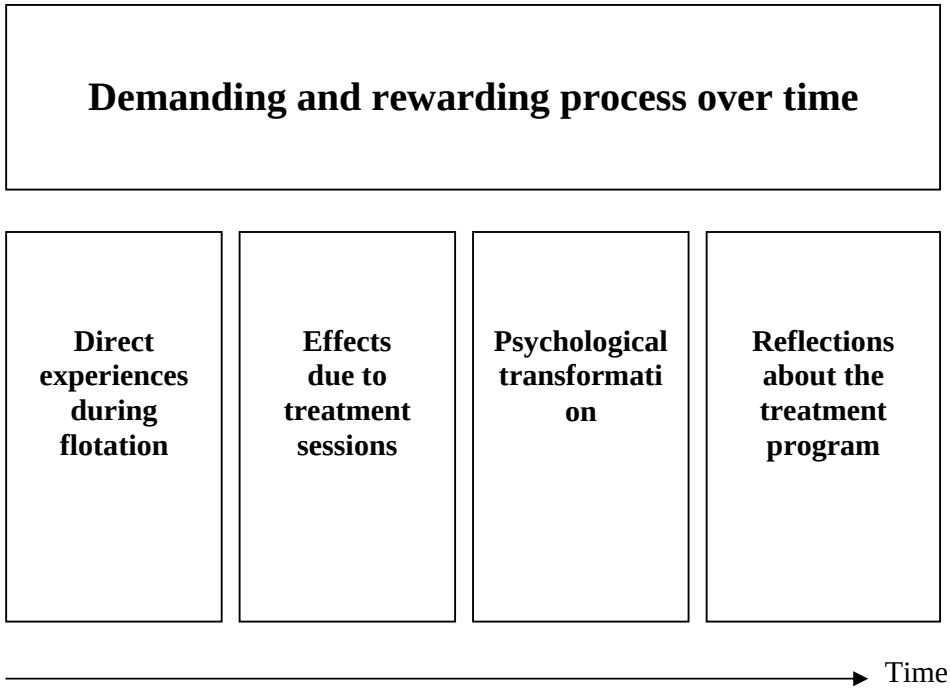
The last theme (categories: 1, 2, 4, 26, 27, 28, 29) describes how clients perceive that their experiences are part of a journey, a process through time where component parts and desires change gradually as the weeks proceed. At the start of the course of treatment, particular things touched and involved the clients that were different than those things that touched and involved them at the end of the treatment period. Near the end of the course of treatment, clients perceived that the journey was not over, but with excitement and confidence the clients look forward to what will happen in the future. At the start of the treatment, clients were occupied with considering whether they wished to invest their time in the treatment program, what they wished to gain from the treatment, and how to formulate their goals. Clients considered technical questions such as when during the day a client wished to undergo the treatment (morning or afternoon), what water temperature was optimal, or what body position one was to maintain in the flotation tank was important at the start. Then, clients began to note that it was hard work to participate: strenuous and difficult experiences arose with a certain degree of regularity and resulted in temporarily increased levels of anxiety, stomachaches, and general lethargy. Clients noted, however, that the process continually progressed and that the occasional, recurring difficulties were worth the trouble. They noted that positive effects accumulated successively and that a continual, positive process of personal development over time was underway.

Toward the end of the course of treatment, curiosity about what would happen in the flotation tank had abated and clients began to feel secure and familiar with effects of flotation. They still continued to appreciate flotation, but their desire for floating slowly began to decrease as they felt they knew what would happen. By the end of the course of treatment, they looked forward with confidence and optimistic wonder to whatever would happen next. They wondered how all these new insights could best be applied, integrated, and incorporated into daily life and activities; they consistently verified that they had gained many positive effects from the treatment and believed that positive developments would continue even after the conclusion of the course of treatment.

Relations among the five themes are illustrated in Figure 1. In the beginning of the treatment period, clients are focused on the "Direct experiences during flotation," later they start to realize "Effects due to treatment sessions," which gradually give rise to "Psychological transformation." At the end of the treatment program, they realize this was not "the end" but the beginning of something new, and they have a number of "Reflections about the treatment program." The course of treatment is a continuous process over time, whose content and meaning slowly change as time passes by. In the beginning, the process mostly involves practical

things, and focuses upon "if" and "how" they are willing to invest their time and effort in this. Soon they realize that alongside the positive effects, treatments give rise to hard inner work. But this is regarded as rewarding. At the end of the treatment program, reflections both retrospective and prospective are prominent. The last theme, "Demanding and rewarding process over time," incorporates the whole time process of the other four themes. See Figure 1.

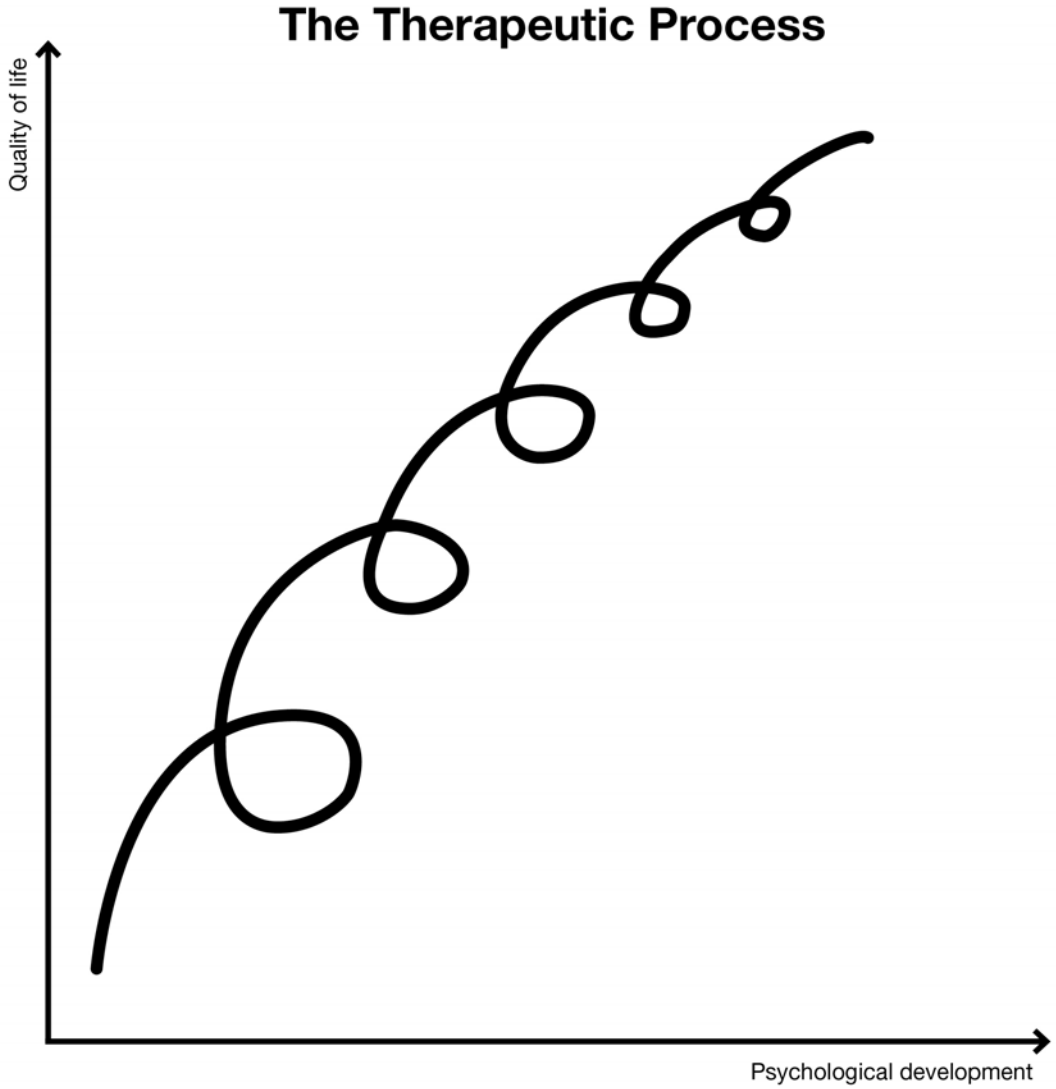
Figure 1. The relationship across time of the five emergent themes that emerged from the analysis; mirroring the processes from the beginning of the combined treatment program (flotation relaxation and psychotherapy) to its end.



The participants were constantly aware of the "demanding and rewarding process over time" during the whole course of the treatment period. In the beginning participants were most focused on the experiences during flotation; later on in the treatment program, they noticed effects of flotation and psychotherapy session, but also started to attend to psychological transformations. At the end of the treatment, clients reflected about the treatment program as a beneficial therapy.

In accordance with Gunnar Karlsson's (1995) EPP-method of analysis, a new meta-level including all five themes emerged, once the five steps had been applied. During the course of treatment, clients went through a significant psychological development and their quality of life slowly improved, though temporary regressions occurred occasionally. These regressive periods were transitory, and thereupon the positive development continued. This new meta-level can be described as "The Therapeutic Process" as is schematically illustrated in Figure 2.

Figure 2. The flotation relaxation combined with psychotherapy therapeutic process, illustrating how experienced quality of life and psychological development are mixed with transient regressions during the course of treatment.



All participants perceived that they improved considerably during the ten weeks of treatment. Given that all of the participants had sought out medical help at their respective occupational health clinic(s) for symptoms of fatigue and lack of energy, sleeping problems, pain, and problems in organizing daily life, it is very rewarding that such a successful improvement could occur in a ten-week period of combined flotation REST and conversation therapy treatment. At the introduction of the treatment period, all participants were currently on the threshold of full-time disability leave for burn-out syndrome. By the end of the course of treatment ten weeks later, all the participants were so full of energy and strength that neither they themselves nor their physicians' assessed that any disability leave was needed. They all returned to work full-time. One participant in the study decided to quit her job and change positions of employment due to the insights achieved during the course of treatment.

It was previously known that flotation-REST alone can impart stress reduction and relaxation, pain reduction, decreased anxiety, increased energy and positive effects upon mood (Bood, 2007; Kjellgren, 2003). But only a few previous studies exist that combine treatment with flotation-REST and psychotherapy (Åsenlöf et al., 2007; Jessen, 1990).

Earlier phenomenological studies investigating flotation-REST (Kjellgren et al., 2008) have not been able to show that prominent psychological processes occur over time. For this reason, we suggest that the combination of flotation-REST with psychotherapy contributes to deepening the psychological transformation process. One must recall that psychotherapeutic conversations in this study took place when clients were in relaxed, mildly altered states of consciousness, which suggests a resulting lowering of psychological defenses, which has in turn made conversation more effective than it would have been in normal states of consciousness. In earlier studies, the effect of ASC has been shown to last at least one hour after the concluded flotation treatment (Norlander, Bergman, & Archer, 1998). It is our global impression after 10 years of working with flotation-REST and patients with similar symptoms, that we have never seen such impressively quick results. The negative effects that temporarily arose for participants when they encountered difficult psychological material were experienced as temporary in nature, and all participants expressed gratitude for having been able to participate in this study.

Against the background of all the positive results that have emerged from this pilot study, further research is suggested that focuses on a similar treatment program (and also a study with reversed order: conversation first, then flotation) where flotation-REST and psychotherapy are combined, but as a randomized controlled trial.

References

Åsenlöf, K., Olsson, S., Bood, S. Å., & Norlander, T. (2007). Case studies on fibromyalgia and burn-out depression using psychotherapy in combination with flotation-REST: Personality development and increased well-being. *Imagination, Cognition, and Personality, 26*, 259-271.

Bood, S. Å. (2007). *Bending and mending the neurosignature. Frameworks of influence by flotation-REST (restricted environmental stimulation technique) upon well-being in patients with stress related ailments.* Doctorial dissertation, Karlstad University, Karlstad, Sweden.

Bood, S. Å., Sundequist, U., Kjellgren, A., Nordström, G., & Norlander, T. (2005). Effects of flotation-REST (restricted environmental stimulation technique) on stress related muscle pain: What makes the difference in therapy, attention-placebo, or the relaxation response? *Pain Research and Management, 10*, 201-209.

Bood, S. Å., Sundequist, U., Norlander, T., Nordström, L., Nordenström, K., Kjellgren, A., et al. (2006). Eliciting the relaxation response with help of flotation-REST (restricted environmental stimulation technique) in patients with stress related ailments: The direct effects and effects four months after treatment. *International Journal of Stress Management, 13,* 154-175.

Edebol, H., Bood, S. Å., & Norlander, T. (2008). Case studies on chronic whiplash associated disorders and their treatment using flotation-REST (restricted environmental stimulation technique). *Qualitative Health Research, 18***,** 480-488.

Eliade, M. (1972). *Shamanism: Archaic techniques of ecstasy*. Princeton, NJ: Princeton University Press.

Giorgi, A. M., & Giorgi, B. (2003). Phenomenology. In J. A. Smith (Ed.), *Qualitative psychology: A practical guide to research methods* (pp. 25–49). London: Sage.

Jessen, W. E. (1990). In-tank flotation therapy. In J. W. Turner & T. H. Fine (Eds.), *Restricted environmental stimulation* (pp. 152–157). Columbus, OH: Medical College of Ohio Press.

Karlsson, G. (1995). *Psychological qualitative research from a phenomenological perspective.* Stockholm: Almqvist & Wiksell International.

Kjellgren, A. (2003). *The experience of flotation-REST (restricted environmental stimulation technique): Consciousness, creativity, subjective stress, and pain.* Doctorial dissertation, Göteborgs Universitet, Göteborg, Sweden.

Kjellgren, A., Sundequist, U., Norlander, T., & Archer, T. (2001). Effects of flotation-REST on muscle tension pain. *Pain Research and Management, 6,* 181-189.

Kjellgren, A., Bood, S.Å., Axelsson, K., Norlander, T., & Saatcioglu, F. (2007). Wellness through a comprehensive yogic breathing program- A controlled pilot trial. *BMC Complementary and Alternative Medicine, 7*, 43.

Kjellgren, A., Lydén, F., & Norlander, T. (2008). Sensory isolation in flotation tank: Altered states of consciousness and effects on well-being. *The Qualitative Report, 13, 636–656.* Retrieved April 15, 2010, from http://www.nova.edu/ssss/QR/QR13-4/kjellgren.pdf

Kjellgren, A., & Buhrkall, H. (2010). A comparison of the restorative effect of a natural environment with a simulated environment. *Journal of Environmental Psychology.* doi: 10.1016/j.jenvp.2010.01.011

Norlander, T., Bergman, H., & Archer, T. (1998). Effects of flotation-REST on creative problem solving and originality. *Journal of Environmental Psychology, 18,* 399–408.

Norlander, T., Gård, L., Lindholm, L., & Archer, T. (2003). New age: Exploration of outlook-on-life frameworks from a phenomenological perspective. *Mental Health, Religion and Culture, 5,* 1-20.

Pramling, N., Norlander, T., & Archer, T. (2003). Conceptualization of the unknown by 6-, 9- and 14- year-old children in a story telling context. In search of a 'heffalump'. *Childhood, 10,* 379-392.

Author's Note

Anette Kjellgren, Ph.D., is working as an Associate Professor in the Department of Psychology. Human Performance Laboratory, at Karlstad University, Sweden. She has an interest in investigating different methods for relaxation and stress reduction. She has conducted studies, mainly about isolation in flotation tank, but also with yoga, meditation and relaxation outdoors in a natural environment. Correspondences regarding this article should be addressed to: Dr. A. Kjellgren, Department of Psychology, Karlstad University, SE-651 88 Karlstad, Sweden; Phone: +46 54 700 21 73; E-mail: Anette.Kjellgren@kau.se

Hanne Buhrkall, M.Sc, is a psychology student in the Department of Psychology, at Karlstad University, Sweden. She has an interest in health issues and psychotherapy. E-mail: hannebuhrkall@hotmail.com

Torsten Norlander, Ph.D., is professor and scientific leader of the Human Performance Laboratory, at Karlstad University, Sweden, where extensive research in areas of stress and performance is conducted. His research interests spans over many fields such as creativity, flotation-REST, psychosis and ADHD, where he applies both quantitative and qualitative methods. E-mail: at.norlander@mailbox.swipnet.se

Copyright 2010: Anette Kjellgren, Hanne Buhrkall, Torsten Norlander, and Nova Southeastern University

Article Citation

Kjellgren, A., Buhrkall, H., & Norlander, T. (2010). Psychotherapeutic treatment in combination with relaxation in a flotation tank: Effects on "burn-out syndrome". *The Qualitative Report, 15*(5), 1242-1268. Retrieved from http://www.nova.edu/ssss/QR/QR15-5/kjellgren.pdf